

## **FAST-CONVERGENCE TWO-STAGE AUTOMATIC GAIN CONTROL (AGC)**

### **ABSTRACT**

**[028]** Disclosed are methods and systems for automatic gain control (AGC) in circuits. The disclosed methods and systems provide accurate and rapidly converging automatic gain control suited for video applications. According to disclosed preferred embodiments of the invention, a signal amplitude controlling method is responsive to gain underflow or overflow. A new fine gain control value is extrapolated and a new coarse gain control value is determined. The new fine gain and new coarse gain control values are applied to the signal to produce an output signal within a pre-selected output amplitude range.